

10/535741

JC20 Rec'd PCT/PTO 18 MAY 2005

DOCKET NO.: 4878/PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE MATTER OF THE **NEW PCT NATIONAL PHASE PATENT APPLICATION**

OF: Seiji NAKAHATA et al.

USSN: TO BE ASSIGNED - new

FILED: May 18, 2005

USPS EXPRESS MAIL  
EV 511 024 341 US  
MAY 18 2005

FOR: Method of Processing Surface of Nitride  
Semiconductor Crystal and Nitride  
Semiconductor Crystal Obtained with  
the Method

INTERNATIONAL SERIAL NO.: PCT/JP2004/008090  
INTERNATIONAL FILING DATE: 03 June 2004

MS PCT  
COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

May 18, 2005

INFORMATION DISCLOSURE STATEMENT

Dear Sir:


- 1) Pursuant to 37 C.F.R. 1.56, 1.97 and 1.98 applicants enclose a Form PTO-1449 and make of record the documents listed thereon. A copy of the English version of the International Search Report issued on September 21, 2004 in the corresponding PCT International Application is enclosed. A copy of reference AC and a partial English translation thereof, and an English abstract for reference AA, are enclosed. Copies of references AA, AB and AD were transmitted to the USPTO by the International Searching Authority in the International processing of this PCT Application.

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- 2) This statement is being filed concurrently with the above identified new PCT National Phase Application.
- 3) References AB and AD are in English. Reference AA is accompanied by an English Abstract. Reference AC is accompanied by a partial English translation and has been discussed at page 2 of the present specification. Therefore, no further discussion of the references is necessary.
- 4) Moreover, the relevance of references AA, AB and AD was indicated by category (X = relevant for anticipation or obviousness when considered alone; and A = technological background, general state of art) in the enclosed International Search Report of September 21, 2004. Thereby, a concise explanation of the relevance has been provided (see M.P.E.P. §609).
- 5) The Examiner is respectfully requested to consider all references of record, return an initialed copy of the enclosed Form PTO-1449 and ensure that all references of record are printed on any patent issuing from this application.
- 6) Favorable consideration and allowance of claims 1 to 12 are respectfully requested.

Respectfully submitted,  
Seiji NAKAHATA et al.  
Applicant

WFF:hc/4878/PCT  
Encls.: postcard,  
copy of International  
Search Report,  
1 reference with  
partial translation,  
1 English abstract

By   
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Sheet <u>1</u> of <u>1</u> <b>FIRST IDS LIST OF REFERENCES CITED BY APPLICANT (FORM PTO-1449)</b> <b>DATED: May 18, 2005</b>				Atty. Docket No. 4878/PCT		Serial No.: <b>107535741</b> to be assigned	
				Applicant: Seiji NAKAHATA et al.			
				U.S. Filing Date: May 18, 2005		Art Unit:	
U. S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	Cl.	Sub- Cl.	Fil. Date
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	Cl.	Sub- Cl.	Trans. Yes      No
	AA	01-204425	08/1989	Japan	-	-	Abst
	AB	WO 02/101121	12/2002	PCT	-	-	Engl.
OTHER DOCUMENTS							
	AC	Mikio Yamamoto, Handbook of Crystal Engineering First Edition, Kyoritsu Shuppan Co., Ltd., 1990 pp. 421-423 with English Translation of Table VI-6-1					
	AD	J.L. Weyher, et al., Chemical polishing of bulk and epitaxial GaN, Journal of Crystal Growth, 182 (1997), pages 17 to 22					
EXAMINER'S SIGNATURE				DATE CONSIDERED			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/008090

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H01L21/306, C30B33/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L21/306, C30B33/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

JOIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X AB	WO 2002/101121 A1 (ADVANCED TECHNOLOGY MATERIALS, INC.), 19 December, 2002 (19.12.02), Claim 67 & US 6488767 B1	1-12
X A+	JP 1-204425 A (Toyota Central Research And Development Laboratories, Inc.), 17 August, 1989 (17.08.89), Page 1, lower right column, lines 13 to 15 (Family: none)	1, 2, 4-6, 8-10, 12
A AD	J.L. Weyher, et al., <u>Chemical polishing of bulk and epitaxial GaN</u> , Journal of Crystal Growth, 182 (1997), pages 17 to 22	1-12

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
03 September, 2004 (03.09.04)Date of mailing of the international search report  
21 September, 2004 (21.09.04)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.